

## REMARKS

In response to the Office Action mailed October 22, 2001, Applicants respectfully request reconsideration. Claims 1-23, 26, 27 and 29-36 are pending in this application, of which claims 1, 10, 26, 30 and 34 are independent claims. The specification and claims 1, 5, 10, 26 and 29 are amended herein. Claims 24, 25 and 28 have been canceled, and claims 30-36 have been added. The application as presented is believed to be in allowable condition.

### Priority Claim

The Office Action asserts that it is not clear that this application is a Continuation of U.S. Patent Application Serial No. 09/257,844 because, although the Transmittal letter filed on May 11, 2001 states that this instant application is a Continuation of 09/257,844, the priority claim is not in the Declaration.

Applicants have amended the priority claim in the specification, on page 1, line 5, to clarify the fact that this instant application is a Continuation of 09/257,844. The declaration is a copy of the declaration from the parent patent application Serial No. 09/257,844. No new declaration is needed as this is a continuation application. Withdrawal of this objection is respectfully requested.

### Objection to the Specification

The specification was objected to for failing to provide proper antecedent basis for the claimed subject matter. In particular, the Office Action asserts that the specification does not provide proper antecedent basis for "the plurality of grooves do not form completely enclosed channels" as claimed in claims 1, 10, 24 and 26. Applicants respectfully disagree.

Applicants respectfully direct the Examiner's attention to Figs. 5, 7, 9 and 10, where the dielectric pair separator 14 is illustrated as being arranged to form a plurality of grooves 15. These grooves are not completely enclosed because the dielectric pair separator does not fold back upon itself to completely enclose the twisted pair 12 within the groove. In another embodiment, illustrated in Fig. 6, the cable includes a binder 19 that is wrapped around the configurable pair separator 14. As shown in Fig. 6, the binder may be in contact with protrusions 17 of the pair separator, such that the binder together with the pair separator forms completely enclosed channels surrounding the twisted pairs 12. In the embodiments of Figs. 5, 7, 9 and 10, since the dielectric pair separator is arranged to have a plurality of grooves, as illustrated in these

embodiments, the dielectric pair separator by nature does not form completely enclosed channels that surround the twisted pairs of conductors. Therefore, the specification is sufficiently clear, as required by 37 C.F.R. 1.75(d). Withdrawal of this objection is thus respectfully requested

Rejection Under 35 U.S.C. § 112, First Paragraph

Claims 1-29 were rejected under 35 U.S.C. § 112, first paragraph because the Office Action states that the specification does not provide enablement for “the grooves do not form completely enclosed channels.” Applicants respectfully disagree. Claims 24, 25 and 28 have been cancelled, and therefore, this rejection is moot with respect to claims 24, 25 and 28. Applicants respectfully traverse the rejection with respect to claims 1-23, 26, 27 and 29.

As discussed above, Applicants respectfully direct the Examiner’s attention to Figs. 5, 7, 9 and 10, where the dielectric pair separator 14 is illustrated as being arranged to form a plurality of grooves 15. These grooves are not completely enclosed because the dielectric pair separator does not fold back upon itself to completely enclose the twisted pair 12 within the groove. In another embodiment, illustrated in Fig. 6, the cable includes a binder 19 that is wrapped around the configurable pair separator 14. As shown in Fig. 6, the binder may be in contact with protrusions 17 of the pair separator, such that the binder together with the pair separator forms completely enclosed channels surrounding the twisted pairs 12. However, in the embodiments of Figs. 5, 7, 9 and 10, since the dielectric pair separator is arranged to have a plurality of grooves, as illustrated in the embodiments, the dielectric pair separator by nature does not form completely enclosed channels that surround the twisted pairs of conductors. Therefore, the specification is sufficiently enabling to those of skill in the art. Withdrawal of this rejection is thus respectfully requested.

Rejection Under 35 U.S.C. § 112, Second Paragraph

Claims 1-29 were rejected under 35 U.S.C. § 112, second paragraph for being indefinite. Applicants respectfully traverse this rejection.

Claims 1 and 26 have been amended to replace “data communications cable” on lines 7 and 5, respectively, with “configurable pair separator”, as suggested in the Office Action. Claim 26 has also been amended to correct other minor informalities noted in the Office Action. Claim 5 has been amended to correct the duplication error noted in the Office Action. These amendments to claims 1, 5 and 26 have been made solely for the purpose of correcting minor

informalities to improve the clarity and readability of the claims, and are not intended to be limiting, nor to in any way narrow the scope of claims 1, 5 and 26. Claims 2-9 depend from claim 1, and claims 27 and 29 depend from claim 26. Thus, these amendments also overcome the rejection with respect to these claims also.

In regard to the assertion in the Office Action that the recitation of “a plurality of enclosed channels” is conflicted with “the grooves do not form completely enclosed channels,” Applicants respectfully disagree. Claim 26 recites “the configurable pair separator comprising a dielectric layer and a conductive layer formed with a plurality of folds to provide a plurality of grooves...wherein the grooves do not form completely enclosed channels.” As discussed above, it is illustrated in the figures that the pair separator does not fold back upon itself, and thus the grooves are open as opposed to completely enclosed. This is not at all conflicted by the recitation in claim 26 that “the binder in combination with the configurable pair separator provides a plurality of enclosed channels,” as is illustrated in Fig. 6, where the binder is shown in contact with protrusions of the pair separator, such that the twisted pairs are completely enclosed by the combination of the two components.

The Office Action asserts that claim 28 was rejected under 35 U.S.C. § 112, second paragraph, because the limitation recited in claim 28 is also recited in claim 26, and thus claim 28 is redundant. Claim 28 has been canceled.

Claims 24 and 25 have also been canceled, and therefore the rejection is moot with regard to claims 24 and 25.

Withdrawal of the rejection of claims 1-29 is therefore respectfully requested.

#### Rejection Under 35 U.S.C. § 103

Claim 24 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Boucino (U.S. Patent No. 5,969,295) in view of Simons (U.S. Patent No. 3,911,200). Although Applicants do not acknowledge that the asserted combination of Boucino and Simons is proper, claim 24 has been canceled. Therefore, this rejection is moot, and withdrawal of the rejection is respectfully requested.

#### Double Patenting Rejection

Claims 1-29 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2-23 and 25 of Clark (U.S. Patent No. 6,248,954) in view of Mottine (U.S. Patent No. 6,037,546).

Applicants do not agree with the rejection of claims 1-29. However, in order to expedite the prosecution of this application, Applicants herewith include a terminal disclaimer to overcome this rejection. Withdrawal of the rejection is therefore respectfully requested.

Newly Added Claims

Applicants have added new claims 30-36 to further define the scope of the claimed invention. No new subject matter has been added.

Conclusion

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to deposit account No. 50-0896.

Respectfully submitted,

*Clark et al., Applicants*

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**MARKED-UP CLAIMS**

1. (Amended) A data communications cable comprising:
  - a first twisted pair of insulated conductors;
  - a second twisted pair of insulated conductors;
  - a dielectric pair separator consisting of a dielectric layer disposed between the first twisted pair and the second twisted pair of insulated conductors, the dielectric pair separator being folded and arranged to provide a plurality of grooves extending along a longitudinal length of the [data communications cable] dielectric pair separator, the dielectric pair separator providing a sufficient spacing between the first twisted pair of insulated conductors and the second twisted pair of insulated conductors so as to provide a desired crosstalk isolation between the first twisted pair of insulated conductors and the second twisted pair of insulated conductors;
  - a jacket assembly enclosing the first twisted pair of insulated conductors, the second twisted pair of insulated conductors and the dielectric pair separator; and
  - wherein the plurality of grooves do not form completely enclosed channels.
5. (Amended) The data communications cable according to claim 1, wherein the dielectric pair separator is a foamed fluorinated ethylene propylene material [material].
10. (Amended) A data communications cable comprising:
  - a plurality of twisted pairs of insulated conductors,
  - a dielectric pair separator consisting of a dielectric layer formed with a plurality of folds to provide a plurality of grooves extending along a longitudinal length of the [communications cable] dielectric pair separator;
  - each twisted pair of insulated conductors of the plurality of twisted pairs of insulated conductors, being disposed within a corresponding groove of the dielectric pair separator;
  - a jacket assembly enclosing the plurality of the twisted pairs of insulated conductors and the dielectric pair separator; and
  - wherein the plurality of grooves do not form completely enclosed channels.

26. (Amended) A data communications cable comprising:

    a plurality of twisted pairs of insulated conductors;

    a dielectric pair separator consisting of a dielectric layer and a conductive layer formed with a plurality of folds to provide a plurality of grooves extending along a longitudinal length of the [data communications cable] configurable pair separator;

    a jacket assembly enclosing the [first twisted pair of insulated conductors, the second] plurality of twisted [pair] pairs of insulated conductors and the dielectric pair separator;

    each twisted pair of insulated conductors of the plurality of twisted pairs of insulated conductors being disposed within a corresponding groove of the dielectric pair separator;

    a binder enclosing the plurality of twisted pairs of insulated conductors and the dielectric pair separator, the binder having a conductive layer that faces each of the plurality of twisted pairs of insulated conductors so that the binder in combination with the dielectric pair separator provides a plurality of enclosed channels extending along a longitudinal length of the data communications cable, each enclosed channel providing crosstalk isolation between [the] a corresponding twisted pair of insulated conductors enclosed within the channel and [the] a remainder of the plurality of twisted pairs of insulated conductors, and providing reduced susceptibility of the twisted pair of insulated conductors to electromagnetic interference; and

    wherein the plurality of grooves do not form completely enclosed channels.

29. (Amended) The data communications cable according to claim [28] 27, wherein the binder and the dielectric pair separator are made of an aluminum/mylar tape, [the] an aluminum layer of the tape being the conductive layer facing the plurality of twisted pairs of insulated conductors.

**MARKED-UP SPECIFICATION**

On Page 1, line 5:

This application is a Continuation of, and claims priority under 35 U.S.C. §119(e) to, commonly-owned, co-pending U.S. Patent Application Serial No. 09/257,844, now U.S. Patent No. 6,248,954 B1, entitled, "Multi-Pair Data Cable with Configurable Core Filling and Pair Separation," filed February 25, 1999, which is hereby incorporated by reference in [it's entity] its entirety.